Botanical Gazette.

Vol. VII. JANUARY, 1882. No. 1.

Editorial.—We make no promises for Vol. VII, except that it shall be better than any before it. With the last volume the catalogue of Indiana plants was published in the form of extras. Some material is now in hand to be published with the present volume, of even more general interest, and we feel confident that the one dollar subscription will be thought but a small return for value received.

M. Crie, before the Academy of Sciences of Paris, in a paper "On some new cases of phosphorescence in plants," reported for the first time emission of light in certain of the Ascomycetes.

Rev. A. B. Langlois has just published a list of the very interesting plants found in Plaquemines County, La. The list numbers 456, and of course the author does not claim that it is complete.

Mr. J. F. James, of the Cincinnati Society of Natural History, has, in the last Journal of that Society, a paper on the variability of the acorns of *Quercus macrocarpa*. He has sketched eight very different looking acorns as belonging to this single species.

Mr. Aug. Foerste, of Dayton, Ohio, writes that Mr. Samuel Weller, a farmer near Centreville, brought him a *Lycoperdon giganteum*, 20 inches in diameter, with a vertical diameter of 15 inches. It weighs 17¾ pounds and was just beginning to turn yellowish green.

Mr. John Robinson has published a list of the dates of flowering of trees and shrubs in Eastern Massachusetts in 1880. Although the Red and White Maples showed flowers in January on account of a few warm days, the season of flowers did not begin before the first of April.

The genera of Compositæ changed by Bentham and Hooker are as follows: *Maruta* becomes *Anthemis*, *Leucanthemum* becomes *Chrysanthemum*, *Cacalia* becomes *Senecio*, *Lappa* becomes *Arctium*, *Cynthia* becomes *Krigia*, *Mulgedium* becomes *Lactuca*, *Nabalus* becomes *Prenanthes*.

We take pleasure in calling the attention of our subscribers to the advertisement of W. N. Suksdorf. The plants he offers for sale so reasonably are very fine, as some large bundles just received abundantly testify. He has many new species, though he is in doubt how long species are considered new.

Mr. A. H. Curtiss has just sent out Fascicle V of his invaluable Florida collections. It contains several new species and very many not in Dr Chapman's Manual. No sooner is the work off hands than this indefatiguable collector is off again to South Florida, whose flora he intends to complete with Fascicle VI.

THE FULL TEXT of Sir Joseph D. Hooker's address on "Geographical Distribution," before the Geographical Section of the British Association last year at York, has come to hand and proves to be what all expected, a complete and compact review of the subject. Much more information is given in its dozen pages than can sometimes be gleaned from whole volumes of more pretentious style.

MR. S. B. BUCKLEY has notes upon some Texas oaks in the Proc. Phil Acad., Part II, 1881. His *Quercus Durandii*, which Dr. Engelmann regards as one of the varieties of *Q. undulata*, he still holds as good, though in spite of a fling at closet workers, it takes a good deal of temerity to dispute Dr. Engelmann's decisions among the oaks. In the same paper *Q. Texana* is reduced to a variety of *Q. rubra*, but by others it is regarded as *Q. palustris*.

IN THE TORREY BULLETIN for December, Mr. William Trelease has a valuable paper on the "Fertilization of Scrophularia," and in conclusion makes the following summary: 1. The flowers are adapted by their coloring, odor, nectar, form and protogyny to cross-fertilization by wasps; 2, in case the insects fail to do their part, self-fertilization is fairly well assured, though we have known it to fail occasionally; 3, the existence of species which are adapted to close fertilization without a previous chance for crossing remains to be proved; 4, cleistogene flowers are produced, so far as we know, by only one species, *S. arguta*.

PROF. JOHN EARLE, of the University of Oxford, has written a little book upon "English Plant-Names from the Tenth to the Fifteenth Century." A single sentence will tell its general bearing. "Plant names are often of the highest antiquity and more or less common to the whole stream of related nations. Could we penetrate to the original suggestive idea that called forth the name, it would bring valuable information about the first openings of the human mind towards Nature; and the merest dream of such a discovery invests with a strange charm the words that could tell, if we could understand, so much of the forgotten infancy of the human race."

MR. JOHN ROBINSON read a paper before the Mass. State Board of Agriculture upon the subject, "Ornamental Trees for Massachusetts Plantations," which has just appeared in pamphlet form. Mr. Robinson sums up his principal points as follows: I. That, for planting in New England, our own New England trees are, with few exceptions, the best. II. That, in addition to the New England trees, we can safely make use of the many beautiful and useful trees which abound in the forests of the Middle States and the Alleghany Mountains; and that to these Eastern species may be joined a few trees of unsurpassed beauty in the Rocky Mountain region. III. For exotic species, with which to add variety and interest to a plantation, we must look to Eastern Asia rather than to Western Europe.

MR. GEO BENTHAM, last November, read before the Linnean Society a paper entitled "Notes on the *Gramineæ*," of which an abstact appears in the last *Journal of Botany*. When Mr. Bentham speaks we all listen. In this paper, the author first mentions the fact of many bad species having been established. Then is given a sketch of the

views of Linnæus, Robert Brown, whose name seems to be synonymous with "sagacity," Kunth, Trineus, Nees von Esenbeck, etc. The statement that Steudel's "Enumeratio Plantarum Glumacearum" is the worst production of the kind he has ever met with is very instructive. The law of priority is sensibly set aside in certain well known genera, and *Sorghum* is retained rather than the earlier *Blumenbachia*, *Cynodon* instead of *Fibrichia*, etc. The arrangement in tribes is as follows:—

A. PANICEÆ.
Tribus 1. *Paniceæ.*
" 2. *Maydeæ.*
" 3. *Oryzeæ.*
" 4. *Tristegineæ.*
" 5. *Zoysieæ.*
" 6. *Andropogoneæ.*

B. POACEÆ.
Tribus 7. *Phalarideæ.*
" 8. *Agrostideæ.*
" 9. *Isachneæ.*
" 10. *Aveneæ.*
" 11. *Chlorideæ.*
" 12. *Festuceæ.*
" 13. *Hordeæ.*
" 14. *Bambuseæ.*

Eleocharis dispar, n. sp. – Culms slender, roundish, several from the same root, erect or ascending, or with some of the shorter ones recurved, very unequal in length, ¼–8 inches high, mostly 1–4 inches. Roots fibrous, tufted, annual. Spikes ovate to ovate-oblong, obtuse, 1–3 lines long, 15 to 40 flowered; scales thickish, firm, oval, obtuse, brown with paler margins; keel green, becoming lighter colored with age. Stamens 2, style 2 cleft. Bristles 6–8, downwardly barbed, mostly shorter than the achenium, but variable in length. Achenium biconvex, obovate, shining, brown to nearly black, roughened with oblong striae, tipped with a flattened or saucer-shaped tubercle.

In sand or gravel near the margins of "sloughs," August and September, Whiting, Lake Co., Ind.

The plant may mature its fruit in shallow water, but during the two seasons in which it has been observed, it was found only in the dry bottom of a shallow pond. It was first detected in August, 1880. Looking for it in the early part of July of the present year, when the bottom of the pond was covered with water, the plants had apparently started, as was indicated by tufts of short stems that could not be identified with any other plants growing there. It is most like *E. multiflora*, Chapman, a Florida plant, but differs in several characters, particularly in the presence of bristles and fewer flowers in a head. One of the most striking peculiarities is the remarkable difference in the length of the culms, some of the heads being scarcely above the surface of the ground, or nearly sessile on the root, on stems. barely ¼ of an inch long, while other stems from the same root may be 8 inches high. Since the short stems bear ripe fruit, they have evidently attained their growth. The plant seems to germinate in the water, but to mature its fruit when the water fails.—E. J. HILL, *Englewood, Ill., Dec., 1881.*